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## On-device voice interfaces driving 10 billion unit MEMS and ECM microphone market

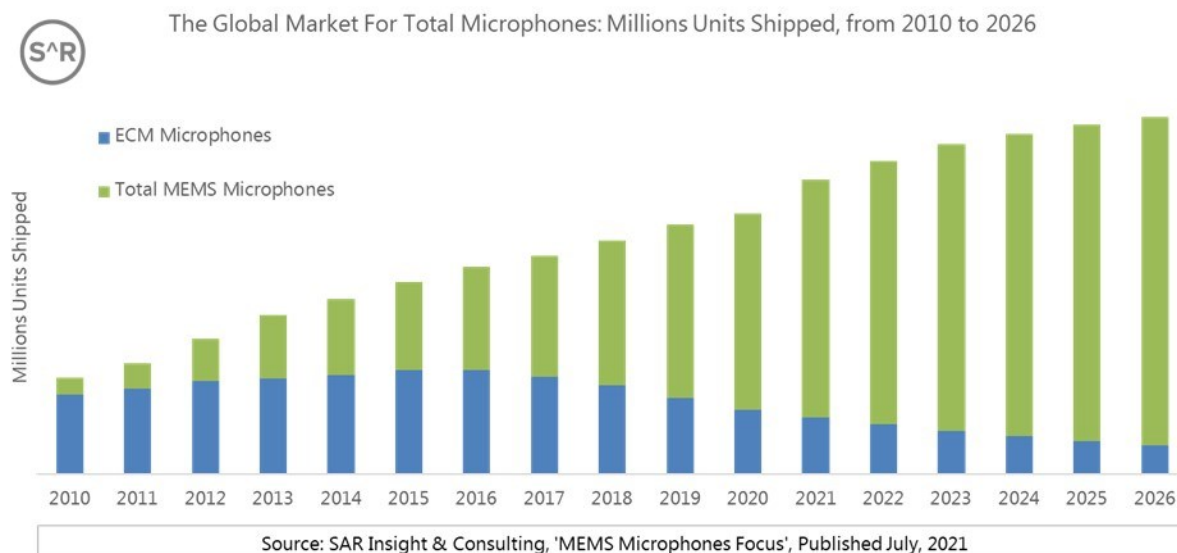
The trend for multiple microphones per device is driving sales, expert analysis by SAR Insight & Consulting has found, with 10 billion MEMS and ECM microphones shipped in 2020. With the emergence of TWS, headphones are now the second largest market.

The microphone market continues to see strong growth, with ten billion microphones shipped in 2020. This was driven by two main factors: increased use of voice interfaces and multiple microphones per device, according to SAR's latest report '*MEMS Microphones Focus: Market Growth, Mic Type, Input Type, SNR, Volume, Performance Density*'.

"The ECM microphone market is expected to continue to be eroded by the increasing use of MEMS microphones," Peter Cooney, the report's author, said. "Low-cost MEMS mics are available that compete with ECMs on price, and most new applications choose MEMS for their advantages, such as robustness."

Smartphones will continue to be the largest market for microphones for the next five years. However, many other segments are seeing very strong growth, and the headphone market is now firmly the second largest segment, led by growth of the TWS earbuds market.

Other important market segments include speakers, computing, home AV, and automotive. Many new markets will emerge and become significant in medical, robotics, toys, banking, and enterprise segments, SAR said.



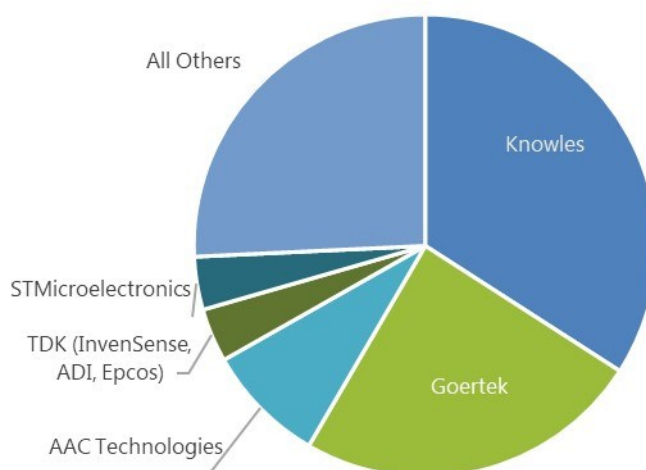
In its sister report—'*MEMS Microphones Shares: Packaged Microphone Vendors, Microphone Die Vendors, Customers*'—SAR analyzes the market shares and customers.

"The supplier landscape continues to evolve, with major vendors such as Knowles, Goertek, AAC Technologies and TDK leading the market, and a whole host of others building their market share, particularly Chinese vendors selling into local markets," Peter said.

Knowles continues to lead the market in terms of packaged MEMS microphones shipped. Goertek has seen its market share rise rapidly from 2012 to be the second largest packaged microphone vendor. AAC Technologies' share has fluctuated through the years and, more recently, it has diversified its customer base. TDK continues to see success in the market, with a good spread of customers across multiple markets. Its acquisition of InvenSense (which early purchased Analog Devices' mic business) was a major win for TDK.

There are other microphone vendors in the market, which have varying success in the market. The market also continues to be affected by the introduction and growth of Asia-based vendors fueling expanding local markets.

 Global Market Supplier Shares For MEMS Microphones Used In Total Market, in 2020



Source: SAR Insight & Consulting. Published August, 2021.  
 'MEMS Microphones Shares: Packaged Microphone Vendors, Microphone Die Vendors, Customers'

Infineon became the number one MEMS microphone die vendor in 2016, and retained top spot through 2020. It also started to produce its own packaged mics in 2017. Knowles is the second largest vendor of MEMS microphone die through its internal market. Others include Omron, New Japan Radio Company, TDK and STMicroelectronics.

Apple remains the largest user of MEMS microphones, for its iPhone, AirPods and other products. Samsung comes a close second, again primarily for its smartphone range but also many other products such as speakers and headphones. Many of the top customers are smartphone vendors but others are also significant, such as Amazon (speakers), Dell (computing), Harman (headphones and speakers) and Bose (headphones and speakers).

**'MEMS Microphones Focus: Market Growth, Mic Type, Input Type, SNR, Volume, Performance Density'** and **'MEMS Microphones Shares: Packaged Microphone Vendors, Microphone Die Vendors, Customers'** from SAR Insight and Consulting contain in-depth analysis of the microphone component market. The study is published as part of its Audio Signal Chain service.

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**Note to editors:** [SAR Insight & Consulting](#) provides detailed quantitative and qualitative research on established and emerging audio, voice/UI, and power markets across multiple end applications.  
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